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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,320	07/05/2001	Dale Francis Obeshaw	DP-301289	2127

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EXAMINER

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
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1772

6

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/899,320	OBESHAW	
Examiner	Art Unit	
Michael C. Miggins	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 6
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-5 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to a contoured structural member, classified in class 428, subclass 36.91.
 - II. Claims 21-39, drawn to a method for making a contoured structural member, classified in class 156, subclass 189.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made via rotational molding or shaping by extrusion, e.g. spinning.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Edmund Anderson on 12/13/02 a provisional election was made with traverse to prosecute the invention of group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-39 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

7. The disclosure is objected to because of the following informalities: The section of the specification titled "Brief Description of the Drawings" (page 5) should contain brief descriptions for each individual drawing figure. Appropriate correction is required.

Claim Objections

8. Claims 1, 6, 8 and 18-20 are objected to because of the following informalities: the terms "art" in claim 1, line 7 should be changed to "at" and the term "ad" in claim 6, line 3 should be changed to "at". In claims 8 and 18-20, the phrase "... the at least one outer layer, **of** any combination thereof ..." at the end of each of claims 8 and 18-20 should be changed to "... the at least one outer layer, **or** any combination thereof ...". It is believed that said terms were mistyped, appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 3-5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is indefinite as to what is a "light" metal or a "heavy" metal in claims 3-4 since there is no official metallurgic standard defining these terms and applicant's disclosure does not adequately define the terms. Although it is noted that the paragraph at the top of page 13 of the specification lists various "light" and "heavy" metals, there appears to be no relationship between the atomic mass of the metal and qualifying for one of the two groupings. Since listed "light" metals (e.g. molybdenum and zinc from page 13) can be heavier in atomic mass than a listed "heavy" metal (e.g. nickel, copper, etc. from page 13), the atomic mass of the metal does not appear to be the difference between "light" and "heavy" metals in applicant's disclosure. Therefore it is indefinite as to what standard must be met to qualify as a "light" metal or a "heavy" metal in order to meet (or fail to meet) the claim limitations. Cancellation of these claims or replacing the indefinite terms with their associated Markush groups from the specifications would overcome this rejection (applies to instant claims 3-4).

11. Claim 5 recites the limitation "the outer surface" and "the inner surface, or both" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

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For the purposes of examination, the phrases "the outer surface" and "the inner surface, or both" has been interpreted to mean the outer surface of the outer layer and the inner surface of the inner layer, or both.

12. Claim 9 is improper because it recites the term "... Teflon ..." which is a trademark. Cancellation of claim 9 or inserting the term "- - polytetrafluorethylene - -" in place of the term "Teflon" would overcome this rejection.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-4 and 6-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 in view of Martin (U.S. Patent No. 5,564,064).

Claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 all recite a contoured structural member, comprising at least one contoured inner layer comprising a composite material, at least one contoured outer layer comprising a composite material, at least one intermediate layer having a ribbed structure connecting the at least one inner layer the at least one outer layer, wherein the structural member has a closed configuration, wherein the ribbed structure of the at least one intermediate layer comprises a honeycomb structure, further comprising at least one initiator, wherein the composite material is a reinforced resin matrix material, wherein reinforced resin matrix material comprises at least one prepreg ply, wherein both the at least one inner layer and the at least one outer layer comprise a composite material (applies to instant claims 1-2, 10-14 and 18-20).

Claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 all recite applicant's invention substantially as claimed. However, none of the copending applications recite the contoured structural member, comprising at least one contoured inner layer comprising a metal-containing material, at least one contoured outer layer comprising a composite material or a metal-containing material and a coating, wherein the metal containing

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material is a light metal or alloy thereof, wherein the metal-containing material is a heavy metal or alloy thereof, wherein the coating is located between the at least one outer layer and the at least one intermediate layer, or both, wherein the coating is incorporated within the at least one inner layer, wherein the at least one intermediate layer, within the at least one outer layer, or any combination thereof, wherein the coating comprises Teflon, wherein both the at least one inner layer and the at least one outer layer comprise a metal-containing material, wherein the at least one inner layer comprises a composite material and that least one outer layer comprises a metal-containing material, wherein the at least one inner layer comprises a metal-containing material and the at least one outer layer comprises a composite material.

Martin teaches a contoured structural member (column 5, lines 49-55, since a cylinder is a contoured structural member), comprising at least one contoured inner layer comprising a metal-containing material (15 from Fig. 2G, column 4, lines 49-67), at least one contoured outer layer comprising a composite material or a metal-containing material and (15 from Fig. 2G, column 4, lines 49-67) a coating (column 6, lines 14-45, the release agent is the coating), wherein the metal containing material is a light metal or alloy thereof (column 5, lines 21-38, since titanium and aluminum are described by applicant on page 13 of the instant specification as light metals), wherein the metal-containing material is a heavy metal or alloy thereof (column 5, lines 21-38, since nickel is described by applicant on page 13 of the instant specification as a heavy metal), wherein the coating is located between the at least one outer layer and the at least one intermediate layer, or both, wherein the coating is incorporated within the at least one

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inner layer, wherein the at least one intermediate layer, within the at least one outer layer, or any combination thereof, wherein the coating comprises Teflon (column 6, lines 14-45, since the Teflon is applied as coating on core layer 16 from Fig. 2G), wherein both the at least one inner layer and the at least one outer layer comprise a metal-containing material, wherein the at least one inner layer comprises a composite material and that least one outer layer comprises a metal-containing material, wherein the at least one inner layer comprises a metal-containing material and the at least one outer layer comprises a composite material (column 5, lines 21-38, since Martin teaches that the metals for the shell container may comprise any metal, metal alloy or composite, and may be the same or different) (applies to instant claims 1, 3-9 and 15-20) for the purpose of providing structures having processing affordability and structural stability and ultimate weight efficiency (column 3, lines 12-37).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a contoured structural member, comprising at least one contoured inner layer comprising a metal-containing material, at least one contoured outer layer comprising a composite material or a metal-containing material and a coating, wherein the metal containing material is a light metal or alloy thereof, wherein the metal-containing material is a heavy metal or alloy thereof, wherein the coating is located between the at least one outer layer and the at least one intermediate layer, or both, wherein the coating is incorporated within the at least one inner layer, wherein the at least one intermediate layer, within the at least one outer layer, or any combination thereof, wherein the coating comprises Teflon, wherein both

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the at least one inner layer and the at least one outer layer comprise a metal-containing material, wherein the at least one inner layer comprises a composite material and that least one outer layer comprises a metal-containing material, wherein the at least one inner layer comprises a metal-containing material and the at least one outer layer comprises a composite material in the contoured structures of any of the copending applications recited above in order to provide structures having processing affordability and structural stability and ultimate weight efficiency as taught by Martin.

Although Martin does not specifically teach that the coating modifies the friction, magnetic, chemical properties, or conductivity properties of the at least one inner, at least one intermediate layer, the at least one outer layer, or any combination thereof, this limitation is inherent in the teachings of Martin since Martin teaches that the coating is Teflon (see column 6, lines 14-45) (applies to instant claims 8 and 18-20).

This is a provisional obviousness-type double patenting rejection.

15. Claim 5 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 in view of Martin (U.S. Patent No. 5,564,064), as applied to instant claims 1-4 and 6-20 above, and further in view of Casser (U.S. Patent No. 5,945,643).

Claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 all recite applicant's invention substantially as claimed. However, none of the copending applications recite a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both.

Casser teaches a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both (40 from Fig. 3, column 4, lines 21-34 and column 9, lines 52-60) in a fiber reinforce, core layer containing structure for the purpose of enhancing or reducing dampening characteristics (column 4, lines 21-34).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both in the contoured structural members of any one of the copending applications discussed above in order to provide enhanced or reduced dampening characteristics as taught by Casser.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-4, 6-10 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin (U.S. Patent No. 5,564,064).

Martin teaches a contoured structural member (column 5, lines 49-55, since a cylinder is a contoured structural member), comprising at least one contoured inner layer comprising a composite material or a metal-containing material (15 from Fig. 2G, column 4, lines 49-67), at least one contoured outer layer comprising a composite material or a metal-containing material (15 from Fig. 2G, column 4, lines 49-67), at least one intermediate layer having a ribbed structure connecting the at least one inner layer and the at least one outer layer (16 from Fig. 2G, column 4, lines 18-21 and column 4, lines 49-67 since a honeycomb is ribbed), and a coating (column 6, lines 14-45, the release agent is the coating), wherein the structural member has a closed configuration (column 5, lines 56-61, since a cylinder is a closed structure), wherein the metal-containing material is a light metal or alloy thereof (column 5, lines 21-38, since titanium and aluminum are described by applicant on page 13 of the instant specification as light metals), wherein the metal-containing material is a heavy metal or alloy thereof (column 5, lines 21-38, since nickel is described by applicant on page 13 of the instant specification as a heavy metal), wherein the coating is located between the at least one inner layer and the at least one intermediate layer, between the at least one outer layer and the at least one intermediate layer, or both (column 6, lines 14-45, since the Teflon

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is applied as coating on core layer 16 from Fig. 2G) (applies to instant claims 1-4, 6-7 and 18-20).

Martin also teaches that the coating is incorporated within the at least one inner layer, within the at least one intermediate layer, within the at least one outer layer, or any combination thereof, wherein the coating comprises Teflon (column 6, lines 14-45, since the Teflon is applied as coating on core layer 16 from Fig. 2G), wherein the ribbed structure of the at least one intermediate layer comprises a honeycomb structure (column 5, lines 56-61 and column 6, lines 3-13 and Fig. 1), wherein both the at least one inner layer and the at least one outer layer comprise a composite material, wherein both the at least one inner layer and the at least one outer layer comprise a metal-containing material, wherein the at least one inner layer comprises a composite material and the at least one outer layer comprises a metal-containing material, wherein the at least one inner layer comprises a metal containing material and the at least one outer layer comprises a composite material (column 5, lines 21-38, since Martin teaches that the metals for the shell container may comprise any metal, metal alloy or composite, and may be the same or different) (applies to instant claims 8-10 and 14-20).

Although Martin does not specifically teach that the coating modifies the friction, magnetic, chemical properties, or conductivity properties of the at least one inner, at least one intermediate layer, the at least one outer layer, or any combination thereof, this limitation is inherent in the teachings of Martin since Martin teaches that the coating is Teflon (see column 6, lines 14-45) (applies to instant claims 8 and 18-20).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 5 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (U.S. Patent No. 5,564,064) in view of Casser (U.S. Patent No. 5,945,643).

Martin discloses applicant's invention substantially as claimed. However, Martin fails to teach that a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both, wherein the composite material is a reinforced resin matrix material and wherein the reinforced resin matrix material comprises at least one prepreg ply.

Casser teaches a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both (40 from Fig. 3, column 4, lines 21-34 and column 9, lines 52-60), wherein the composite material is a reinforced resin matrix material (32 from Fig. 3, column 9, lines 52-60, column 3, lines 26-51) and wherein the reinforced resin matrix material comprises at least one prepreg ply (column 4, line 46 through column 5, line 37) (applies to instant claims 5 and 12-13) in a fiber reinforced, core layer containing structure for the purpose of enhancing or reducing dampening characteristics (column 4, lines 21-34).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a coating which is located on the

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outer surface of the outer layer, the inner surface of the inner layer, or both, wherein the composite material is a reinforced resin matrix material and wherein the reinforced resin matrix material comprises at least one prepreg ply in the contoured structural member of Martin in order to provide enhanced or reduced dampening characteristics as taught by Casser.

20. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (U.S. Patent No. 5,564,064) in view of Reid et al. (U.S. Patent No. 6,308,809).

Martin discloses applicant's invention substantially as claimed. However, Martin fails to disclose a structural member further comprising at least one initiator.

Reid et al. teach a fiber reinforced contoured structural member (column 2, lines 25-30, since a tube is contoured) further comprising at least one initiator (column 2, lines 42-50 and 17-19 from Figs. 3A and 4A since holes, notches, cuts, scores and gussets are initiators) for the purpose of providing a crash attenuation system capable of energy absorption (column 1, lines 32-50).


Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a structural member further comprising at least one initiator in the contoured structural member of Martin in order to provide a crash attenuation system capable of energy absorption as taught by Reid et al..


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

MCM 
December 16, 2002


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

12/16/02